

MONDAY, 25<sup>TH</sup> OCTOBER, 1875.

WILLIAM MACLEAY, ESQ., PRESIDENT, in the Chair.

## NEW MEMBERS PROPOSED.

Hugh Kennedy, Esq., University ; A. Dodds, Esq. ; Francis Lark, Esq., Sydney.

The PRESIDENT read the following paper, entitled NOTES ON THE ZOOLOGICAL COLLECTIONS MADE IN TORRES STRAITS AND NEW GUINEA DURING THE CRUISE OF THE "CHEVERT."

It is now five months since I took my departure from Sydney for a few months' cruise among the Islands of New Guinea and Torres Straits. I was accompanied, as you are aware, by Mr. Masters and Mr. Brazier, both members of our society, and I had, besides, with me, two very competent taxidermists and collectors—Messrs. Spalding and Pettard. The results of the expedition I hope to be able to exhibit to you in a few weeks, upon the arrival of the "Chevert," now on her way from Cape York. In the meantime I have jotted down, from memory, a few notes and observations, which, I trust, will not be altogether uninteresting to you.

The mammals of New Guinea are, almost without exception, marsupial ; the exceptions are, the New Guinea pig—*Sus Papuensis*, which seems very abundant, and is frequently domesticated ; a small breed of dog, kept in a domestic state by the natives—probably a variety of the dingo of Australia ; a few *muridæ*, and several species of large frugiverous bats. Of course, the deer, monkeys, and tigers of Captain Lawson exist only in imagination, and, I think, the same may be said of the buffaloes of the Rev. Mr. Macfarlane, the Congregational Missionary at Cape York. We were not fortunate in procuring many of the mammals ; but, kangaroos of various sizes and genera appeared to be abundant ; and we saw specimens of *Cuscus*, *Belideus*, and other *Phalangers*. We saw, also, a species of *Parameles*, but no *Dasyurus*, or other carnivorous marsupial.

The collection made of birds during the trip amounts to about 1000 specimens. The avifauna of New Guinea resembles, in a great degree, that of Australia, the same genera, and often the same species, being common to both countries ; but there is, besides, in New Guinea, a distinctive type of birds, which more resembles the fauna of the Dutch Archipelago. Among the most common of the Australian forms in New Guinea is the Bee-eater—*Merops ornatus*. It is, with us, only a summer visitor. It seems to commence its annual migration southwards as early as August. Throughout the early part of September, I observed, or heard, scattered flocks of from twelve to twenty of them passing the ship at all hours of the day and night, and making direct for the main land near Cape York. They flew low, and with anything but a steady flight. I imagine their migration is a very slow and painful affair, for it is generally the month of November before they reach their breeding grounds on the Murrumbidgee.

Another summer visitor to the northern parts of Australia from New Guinea is the Torres Straits pigeon—*Myristicivora spilorrhea*. We found that it commenced its migration southwards in the month of July ; at that time the low islands of Torres Straits were covered with them, their favourite fruit—the date plum—being then ripe and abundant. It is not, however, till February, I am told, that these birds reach their southern limit, about Port Denison. The well known dollar bird *Eurystomus pacificus*, is another of our summer birds which seems to winter in New Guinea. The *melliphagidæ* and flycatchers of New Guinea were mostly of common Australian genera, while the raptores and grallatores were, in many instances, of the same species. Of the truly Papuan Fauna, the most beautiful things we got were kingfishers, pigeons—several species of great beauty, Scansores of brilliant colours, and specimens of *Buceros ruficollis*. A most welcome addition to my Australian collection was made by Mr. Masters, at the North Barnard Isles. He procured three specimens of the beautiful *Ptilorhis Victorix*, a bird which has never yet been found anywhere else. I have also been able to add very largely to my collection of Australian sea birds, more particularly among the *Sternidæ*.

The reptilia I found to be numerous represented in New Guinea, and there are few, if any, of the Islands in the Straits, however small, in which there were not some lizards. At Katow, I got, by the assistance of the natives, a number of species of snakes, lizards, and tree frogs; the snakes all, I think, of undescribed species, and, with one exception, venomous. All the rivers swarmed with alligators, but they were not easily killed. I got two, however, while at Katow, the largest only nine feet long; the species I have not yet made out. At Hall Sound I got a huge *Liasis*, and at Darnley Island a species of *Morchia*. Some of the lizards are of great beauty, and all quite new to me.

My collection of fish numbers about 800, the largest portion of them, however, from the northern coast of Australia. I found it difficult to get the fish of New Guinea; it was impossible to haul the seine on the rough coral beaches; the hook was tried, but ineffectually, and the natives of Hall Sound, though always catching fish, would never part with anything edible. I managed, however, to get some very remarkable looking things. I should say that sharks and rays are by far the most numerous tribes of fishes in Torres Straits and the adjacent reefs. I got many species of each. Near the muddy coast of New Guinea, the *Siluridæ* seem well represented. Everywhere, of course, among the reefs *Labridæ* of the most beautiful colours were abundant. Of Percoid fishes, those of the division *Pristopomatidæ* were the most numerous, though the *Squamipennes* were also rather abundant. I got one very curious acronurous fish, evidently of the genus *Naseus*, but with the frontal *horn* of very great size. At Darnley Island the ship was attended for several days by a number of large sucking fish *Echineis Remora*, who adhered to the ship's side, but let go their hold the instant anything edible was thrown overboard. The only fish I met with, having a claim to recognition as an article of food, is a species of large-scaled mullet—*Mugil*, which abounds about Cape York, and is really delicious.

Of marine mollusca, a very large collection has been made, so large that I cannot give a guess even at the number and value of the specimens. There are among them many rare and new

species; these, as well as many jars full of echinodermata, annelida, polyzoa, &c., in endless variety, were collected on the reefs at low water, or dredged for at various depths, along the north-east coast of Australia, and in Torres Straits, whenever opportunity offered. But nowhere was the yield so good as at Darnley Island. During a few days dredging there we got more fine shells and annelids than at all the other places taken together. The collection of land shells also, chiefly from New Guinea, comprises many new species of *Helix*, &c. I cannot, I regret to say, give you at present more detailed information in regard to these testacean mollusks. When Mr. Brazier arrives he will be able to furnish the fullest information on the subject to all those curious in such matters.

The collection of "ARTICULATA" I look upon as extremely valuable. The insects were chiefly collected at Cape York, Darnley Island, and New Guinea, and in all these places there was a general resemblance to the Polynesian fauna, and an extraordinary absence of the usual Australian forms. The diurnal lepidoptera were numerous, and in great variety. *Ornithoptera pronomus* was common at Cape York, and *O. Poseidon* at Darnley Island and Hall Sound. The coleoptera were, upon the whole, rare, and difficult to get, though we managed to scrape together several thousand specimens. *Longicornia* and *Curculionidæ* were the most abundant. Of *Lamellicornia*, *Phytophaga*, *Buprestidæ*, &c., there were few, and the almost entire absence of the carnivorous ground beetles was most remarkable. There are, however, many new species among the insects of all orders, and some of great size and beauty. Mr. Spalding cut out of one tree at Hall Sound a dozen specimens of *Batocera Wallacei*—an insect of great rarity. The collection of *Arachnida* was also good.

*Crustacea* were got in great numbers and variety on the reefs, in dead coral and in the dredge.

Altogether I have succeeded in getting together a vast and valuable collection—a collection which, considering the short time at my disposal, seems wonderful, and which affords undoubted proof of the industry and zeal of my staff of collectors. For, it must be remembered that, though the full time of my intended

absence from Sydney has expired, the actual time available for the purposes of the voyage was much less than I calculated on. The "Chevert," though a good, dry, and comfortable ship, was unable to sail against the wind, and it was so constantly against us during a great part of the expedition, that I do not think we had more than sixty days for collecting during the five months' cruise. The laborious task of arranging, naming, and describing this very large collection still remains to be done. I am desirous that the complete zoology of the expedition should be published in this country, and indeed, would be glad if all papers on this subject, particularly those descriptive of new species could make their appearance in the transactions of this society. It may, however, be a long time before some of the classes of marine animals can be entered on. For the present, Mr. Masters, I hope, will undertake the mammals and birds of the Expedition. Mr. Brazier, I have no doubt, will take the testacean mollusks in charge. I may, probably, if I have time, take in hand the reptiles, fishes, and insects; but, I confess, that I cannot at present think of any one who is likely to do justice to the crustacea, echinodermata, annelida, polyzoa, polypifera, and other still lower forms of animal life.

I have confined this paper to a brief notice of the zoological part of my collection alone, but I have not neglected ethnology and geology. As regards the botany of the Expedition, I am in hopes that Sir W. Macarthur may communicate something to the Society on that subject.

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Mr. MASTERS exhibited a number of fine specimens of the gigantic *Batocera Wallacei*, taken in the vicinity of Hall Sound, New Guinea.

#### DONATION.

A very fine and perfect skull of a species of *Xiphias* was presented to the Society by Dr. CHARLES M'KAY.